BUILDING & SAFETY
CITY OF LAS VEGAS
DEVELOPMENT SERVICES CENTER

SUBMITTAL REQUIREMENTS FOR METAL PLATE CONNECTED WOOD TRUSSES, I-JOISTS, STEEL TRUSSES, STEEL OPEN WEB JOISTS, AND STEEL JOIST GIRDERS

Effective December 1, 1997, in addition to any other code requirements, the following procedures will be followed for all truss and I-joist packages submitted for Building Department approval. These are minimum standards and are not intended to be all-inclusive.

The submittal of plans to the City of Las Vegas Building Department for plan check may be allowed without a complete truss layout/engineering. Plans will proceed through plan check process up to structural plan review. Plans will be held in structural plan review until the layout/engineering package is submitted or deferred. The layout/engineering package from the truss manufacturer must be reviewed and accepted by the Engineer of Record prior to submittal to the Building Department. The approved layout/engineering package from the truss manufacturer must be on file at the Building Department before any permits will be issued.

Whenever the approved truss manufacturer is changed on a project, complete truss layout/ engineering packages prepared by the new truss manufacturer must be submitted to and approved by the Engineer of Record and the Building Department prior to permits, construction and inspections.

I. Layout/engineering package guidelines (also see IBC 2303.4.1):

Layout/engineering packages will include customer name, job name, plan or building identification, date, truss manufacturer, layout by truss manufacturer, individual truss drawings sealed by a Nevada registered engineer and cover letter “Wet” sealed by a Nevada registered engineer, bound together as a unit.

A) One “Wet” sealed set and two copied sets will be submitted for Building Department approval.
B) Cover letter of each truss package prepared for submittal must be “Wet” sealed and hand signed **(no signature stamp)** by a Nevada Registered Engineer.
C) “Wet” sealed set will consist of original “Wet” seal in black or blue ink, date stamp and signature in blue ink over seal on each drawing. Cover letter with original “Wet” seal in black or blue ink with date stamp and original signature **(no signature stamp)** in blue ink, bound together as a unit.
D) Copied sets will consist of copies of sealed and signed drawings and a cover letter with original “Wet” seal, date and hand signature, bound together as a unit.

II. Truss layout guidelines:

Layout sheets prepared by truss manufacturer showing:

A) Fabricator identification.
B) Development and building identification.
C) Date of layout drawing.
D) Location and spacing of all trusses or joists.
E) Each truss type with a separate designation referenced to the truss drawings for different shapes, spans, or loading conditions. More than one truss designation may be specified on individual engineered drawing.
F) All bearing points shown.
G) Any top or bottom chord load conditions other than standard.
H) Any concentrated loads, drag loads, or shear transfers per plans and specifications. Connections for these loads are by others.

I) Any attachment details such as truss to truss and truss to beam connections, hip truss connections, girder-to-girder connections, corner connections, etc.
J) Recommended truss to truss and truss to beam hangers must be specified on either truss layout, sealed truss engineering sheets, or separate hanger schedule sheet. A Nevada registered design professional is required to seal the hanger schedule.

III. Truss Engineering guidelines:

Truss drawing sheets prepared by truss manufacturer including:

A) Name of project and truss fabricator.
B) Name of connector plate manufacturer and their ICC approval.
C) Identification of all trusses referenced to truss layout sheet.
D) Exact span, shape, and web configuration.
E) Truss or joist spacing.
F) Size and gauge of metal connector plates at each joint.
G) Material specifications including species, grade, and size for chords and webs.
H) All design live loads shall be per Table 1607.1
I) Forces in each member with a designation showing whether forces are in tension or compression.
J) Minimum bearing size required at all bearing locations.
K) Fabricator's code approval agency and the year of the IBC Code used for the truss design.
L) A Nevada registered engineer must seal each individual truss design and hanger schedule.

IV. Proof of fabricator approval:

1) All fabricators must have submitted copies of ICC Certification as an approved fabricator or inspections done by an approved registered independent third party inspection agency to receive Building Department approval. Layout/engineering package will not be accepted for plan check by any Building Department until fabricator has been approved by Clark County Building Department and is shown on the Approved Fabricator list. Clark County Building Department will provide the Approved Fabricator list to all other Building Departments.
2) Submittals for approval must be mailed to Clark County Building Department by ICC or the approved third party inspection agency. **Submittals mailed to Clark County Building Department by fabricator will not be accepted.**

Note A: "Copies" of approved truss drawings and layout sheets are to be maintained at jobsite and building department. "Wet" sealed truss drawings are not required at the job site, except for field repairs.

Note B: Fabricator's name on approved layout/engineering package and fabricator's identification on trusses must match and be from fabricator listed on the current Building Department Approved Fabricator list. When layout/engineering package and fabricators identification differ, inspections will be stopped until the correct layout/engineering package has been approved as required in paragraph 3 of the Submittal Requirements.

Note C: Fabricated trusses, lumber and steel connectors must be identified in sufficient quantity to determine truss manufacturer, grade, and species of lumber and steel connector manufacturer.

Note D: All truss field repairs require a "Wet" seal of a Nevada registered engineer to be accepted by the building inspector at the job site. Plan check review for "Wet" sealed field repairs will not be required unless otherwise required by site inspector. Faxed copies will allow

for field repair and work to continue. "Wet" seal must be provided before final building inspection. "Wet" seal must be provided before final building inspection. The "Wet" sealed engineering set will remain at the job site. After job site review by the building inspector, a copy will be taken to the office of the Building Department by the inspector for their records.

V. Steel Open Web Joists and Steel Joist Girders (Commercial Buildings Only)

The shop drawings and calculations may be deferred subject to the approval of the Building Official, and only upon satisfactory completion of the following requirements:

A) The plans submitted for plan check shall include a complete plan layout of the joists and girders showing size, location and spacing of the joists and girders, with separate designations for different shapes, spans or loading conditions. All lateral supports, openings and roof top units shall be shown.

B) Show all connections to supports, bearing points and all connections showing a complete load path capable of transferring vertical and lateral forces from point of origin to the load resisting elements.

C) The Structural Engineer of Record shall specify the sizes of joist/girders with standard loads and provide a special loading diagram for joists/girders requiring custom design by manufacturer due to concentrated loads, hanging loads, sprinklers and non-uniform loads such as mechanical equipment. It is the Engineer of Record's responsibility to specify these loads, along with wind uplift loads.

D) Deferred submittal items shall include detailed structural calculations of joists/girders and complete shop drawings by manufacturer and/or fabricator as detailed in items II and III above. These documents shall be stamped and signed by a Nevada registered professional engineer. The Engineer or Architect of Record shall review these documents and forward them to the Building Official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance with the design of the building.

E) The Building Official shall determine the period of time that the submittals may be deferred.